SCIENCE AND TECHNOLOGY COMMITTEE

THE ROUTES THROUGH WHICH THE SCIENCE BASE IS TRANSLATED INTO INNOVATIVE AND COMPETITIVE TECHNOLOGY

MINUTES OF EVIDENCE

Wednesday 1 December 1993

Dr Brennan M Hiorns, Mr Colin R Fell and Mrs Janet Sidaway

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WEDNESDAY 1 DECEMBER 1993

Members present:

Dr Jeremy Bray
Cheryl Gillan
Lynne Jones
Mr Andrew Miller
Mr William Powell
Sir Trevor Skeet

In the absence of the Chairman, Sir Trevor Skeet was called to the chair.

Examination of Witnesses

Dr Brennan M Hiorns, Deputy Managing Director and Head of Research, Mr Colin R Fell, Director, Head of Engineering and Mrs Janet Sidaway, Director, Kleinwort Securities, were examined.

Chairman

728. Mr Fell, Dr Hiorns and Mrs Sidaway, welcome to this Committee. We are carrying out an inquiry into the routes through which science base is translated into innovation and competitive technology. We have been impressed by your general background picture and that you are on the Stock Exchange of New York, London, Paris, Hong Kong and Tokyo. I noticed that you are applying in conjunction with the Polish Development Bank for operations inside Poland, so you have a great spread of interest and experience. I wonder if I could just put one question to you and that is, with your experience on the five Exchanges to which I have referred, what difference do you perceive in the way the Exchanges are likely to react to the investment in R&D and, in particular, long term R&D?

(Dr Hiorns) I think this is a very complicated question because the development of investment analysis and the measurement of stocks and shares varies from market to market so you do not have a common absolute measure of management. But I think I would say that the more sophisticated and the more developed the market—and I think I would place the United States and the United Kingdom in that category—the more likely it is that in certain circumstances the value of research and the value of the technological base of the company will enter into its market valuation. I think that in markets like those in the Eastern Bloc certainly in so far as they exist, and in markets like Germany and in Japan, the valuation of stocks, whether it be on the basis of their technology or, indeed, any of the other measures that go into making up the share value, is less sophisticated because corporate sectors there are less used to responding to the questions and enquiries of investment analysts.

729. Since about 50 per cent of the shares are held by the pension funds in the United Kingdom, compared to a very much larger figure in Japan, would that still apply?

(Dr Hiorns) The extent to which the market is held by professional investors, whether they are pension funds or insurance companies or, indeed, merchant banks, as opposed to the extent to which the market is held by private investors is actually extremely important to the way in which shares are evaluated. If one were to compare the United Kingdom with the United States, for example, where on some measures the professional or institutional holding of the United Kingdom equity market is very much greater than that in the United States, that would go a considerable distance in explaining the difference in investment behaviour between the two markets. So the extent to which markets are held and controlled by professionals is extremely important.

Cheryl Gillan

730. A recent report suggested that the Cost of Capital in the United Kingdom is far higher than in the United States, Germany and Japan. In fact, it went so far as to say that the relatively low cost of funds gave Japanese and West German firms the largest Cost of Capital advantage, particularly with respect to long term projects. I wondered if you would care to say to what extent that affects the analysts and also the stock markets' views of R&D investment in this country?

(Dr Hiorns) You can see that we have been discussing among ourselves how we are going to approach this because I think it is important to recognise that we as investment analysts do not spend a great deal of time examining the Cost of Capital. That is something that people within companies, in the Treasurer's department in a company, will be much more interested in. Of course we are aware of the commonly held view that Cost of Capital in the United Kingdom is higher than in Germany or in Japan. I think if I might set your question in the terms in which we understand it, I would say that in the United Kingdom there is much greater understanding by analysts and as I mentioned earlier the institutions hold the equity and there is a freer market of information about the capital structure of companies. In Germany and in Japan, partly because the investment analytical system and the equity market system is much less developed and partly because holdings in those companies are held much more closely by a series of inter-related financial groups, it is much more difficult to ascertain the Cost of Capital.

Chairman

731. As this is a very important subject—the Cost of Capital—and as it is three times more expensive in the United Kingdom than Japan, I wonder whether you have had an opportunity to study the budget proposals? Three schemes were outlined; enterprise investment

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[**Chairman** *Contd*]

scheme—20 per cent tax relief on investments up to £100,000—venture capital trusts which is foreshadowed and capital gains tax for a reinvestment scheme. Do you think that is going to lead to an improvement?

(Mr Fell) I certainly think it is more to do with the availability of capital rather than the actual Cost of Capital. Coming back to the earlier point, I think I would make two points; one, you cannot divorce the Cost of Capital totally away from the underlying economic performance of the state and a lot of the reason for the high Cost of Capital and the high interest rate is poor performance and erratic performance. Second, I think when you get to the large company structures, Cost of Capital is very rarely the major factor which determines whether something goes ahead or not. Much more so is whether there is the confidence to do it. When you get to the smaller company sector and the individual entrepreneur then it is both the Cost of Capital and the availability of capital and the big problem in the last few years has been the availability of capital which has dried up enormously.

732. But if greater availability is made of capital, surely it would tend to cheapen, other things being equal?

(Mr Fell) Yes, very much so.

Lynne Jones

733. On that, surely the Cost of Capital is relevant particularly to small companies and if you are talking about differences this is net cost after taking into account factors such as inflation, the tax regime. If you are talking about a difference of threefold,which is what the London Business School report said, surely that is going to mean that we are not in such an advantageous position in this country as competitors?

(Mr Fell) I think on the smaller companies that is definitely correct, if you are talking about companies who are purely United Kingdom based. When you get to international companies then of course they have access to different markets and there are all sorts of other factors which determine whether they will put a new plant in the United Kingdom or put it somewhere else.

734. So in terms of the budget measures, are you saying that it will not make any difference on the Cost of Capital?

(Mr Fell) I think it could make quite a big difference for the small and the very small entrepreneur.

735. In what way?

(Mr Fell) I think the big problem recently has been capital from the banking system drying up. Having encouraged a lot of free capital in the mid-80s, the screw was turned far too much and I think a lot of very small businesses need access to new sources of capital and what was proposed yesterday may well be a help.

736. Have you an estimate of the amount of extra capital that is likely to become available as a result of these measures; just a ball park figure?

(Mr Fell) No, I do not think I could give that.

Chairman

737. This would seem to be a key issue. There was a very interesting article in "Investing in the Future", an executive summary in which it makes a number of recommendations on what the executive should do. They mention about the investment relief, capital gains tax relief, which I think we have now, and see-through relief, interest relief, portfolio relief. Just having seen what it is in the budget and having seen all these additional suggestions, would you have any suggestions of your own on how to overcome this problem? Cost of Capital is very important to all companies, particularly in the technological field.

(Mr Fell) I think consistency of economic management is by far the overwhelming determinant of Cost of Capital. We almost got into the situation of a virtuous circle in the late-80s and it all went wrong again.

738. So you would put it down to a simple thing; that the economic management is the sole answer and no additional work by the Treasury?

(Mr Fell) I think a lot of other things can affect the framework and can move it around the trend, but ultimately what determines investment and the growth of new companies and new businesses is economic growth.

739. May I ask you finally, because it is an important point, is there any country other than our own which has a more attractive way of being able to cheapen money? We know the Japanese are cheaper and we know the Americans are cheaper and so forth, but what should we adopt? Just management of the economy?

(Dr Hiorns) I think my answer to that would certainly be management of the economy. One measure of that is the yield basis of the stock market. One of the noticeable characteristics of both the Japanese and the German markets is the much greater willingness of the market to value companies on what we would call a PE basis, rather than a yield basis. I think the greatest measure that could improve the Cost of Capital environment for British industry is that there should be long term confidence in our economy through its management and hence the much greater confidence of the investor in the profit generating ability of British industry.

Dr Bray

740. Could you say exactly, for the benefit of the record and for us as members of the Committee, the difference between the PE and the yield basis?

(Dr Hiorns) Yes. The yield basis is obviously the yield that the dividend paid out by the company; in other words the flow of capital back from the company to the investor. That is the yield.

741. The yield of the dividend to the ratio to what?

(Dr Hiorns) Based on its price in the market at the time of purchase. However, its value as an economic

[**Dr Bray** *Contd*]

measure is that a company paying a high yield lacks the confidence of the market and it is hence having to return capital to the capital pool in the economy. If the company enjoys the confidence of the investor the text book would say that therefore the investor in the company is confident that the management of the company can invest that dividend flow better in his own company than the fund manager controlling the pool can do elsewhere in the economy, that it is better that he should reinvest within the corporate entity, thus generating higher profits growth than the fund manager could who has received—or in this case, has not received—the dividend back. When that virtuous case occurs the stockbroker and the fund manager start to value the company on the price earnings ratio; that is, the ratio of the price to the profit generated.

742. Generated, not distributed.

(Dr Hiorns) That is right. One of the characteristics of the German and Japanese markets is that they are much more PE based. In other words, their investors have more confidence of the profit generating capability of those corporate entities.

743. Could you give examples of extreme cases of these. I mean, on the Shinsen Stock Exchange?

(Dr Hiorns) No, I could not do that.

744. In Hong Kong, with very high priced investments?

(Dr Hiorns) I can only give you very crude examples because I would have to remember PE ratios from some time back. It is perfectly feasible that a British company could be on a PE of 8 while a company more or less the same and at a similar point in the economic cycle—because clearly these variables are affected not just by the company, but by general market conditions—the same company in Japan could be valued on 20, 30, 40 times. Now there are differences of accounting procedure and so on, but that is a measure of the difference in confidence that can exist.

Mr Powell

745. I wonder whether you are able to advise us as to whether there are differences between markets in the shareholders' willingness to hold shares long term?

(Dr Hiorns) I think the answer to that has to be yes, there is a difference in the willingness of shareholders to hold shares long term. There are plainly examples like Germany where shareholders will hold shares for very long times indeed. Generations. I do not know the statistic, but I would think that a substantial part of the market capitalization of German companies has not changed significantly since the early 50s, while in markets like the United Kingdom and the United States the turnover in shares will be quite rapid and indeed there are pressures upon managers which generate that turnover.

746. Can you perhaps analyse that a little bit more closely; the factors which differentiate one market from another in this respect?

(Dr Hiorns) We referred earlier to the very heavy proportion of equity in the United Kingdom held by professional fund managers. In other words, they are holding the equity on behalf of the saver and their own performance is measured by the return they make on the fund and over the past ten to fifteen years, the habit of performance measurement has developed quite strongly in the United Kingdom. May I just try to define that? The proper measurement of the performance of a fund manager is whether he ultimately meets the long term liabilities of the fund. In other words, that when somebody retires his pension is there. That gives to the fund a long run real return requirement which can be anything between 3 and 5 per cent and that figure tends to be very constant throughout time. If investment managers wish, perhaps for commercial reasons because they wish to attract more funds to take under management, if circumstances arise where they choose to have their performance measured by one of the various measurement groups—the Derbyshire County Council Performance Measurement used to be a very important one in measuring the performance of local authority pension funds, for example—then instead of being measured on whether they can meet the ultimate liabilities of the funds, they can be measured on a three or six monthly performance measure and this is in some ways a rather artificial requirement. They are actually required to meet a liability in 25 years' time. If, however, they are choosing to submit themselves to performance measurement, they must then become more active to show a better short term return. That system is common in America, for example, and explains some of the similarity between the United States and the United Kingdom. It is not used in France where funded schemes do not exist on anything like the scale in the United Kingdom and it certainly is not used in Germany. Now, that is a force upon the fund manager to perform.

747. Are there other forces?

(Dr Hiorns) I think the very percentage under the control of the professional fund manager is significant. Remember that by saying that, one is saying that for the London market a small group of people—I always quote 200 people—with very common criteria for measuring their performance, are taking the investment decisions—often the same decision—which generate volatility in the market. That whole system means they have to move very quickly indeed if they are to out-compete their rivals. In America that kind of pressure, that kind of very forced mechanism, is not present. There are probably—this is a guess on my part —2,000 or 3,000 fund managers and a vast number of private investors who are cushioning the impact of changes in knowledge about any stock.

748. So there is far greater competition in the American market?

(Dr Hiorns) No, the professional competition is probably greater in the United Kingdom market. There is competition in America, but it is alleviated, damped out by the larger number of fund managers. I am sorry, we are probably getting into definitions here, but it is not as critical in America as it is in the United Kingdom.

[Mr Powell *Contd*]

749. Some might say that what you have described for the United Kingdom really amounted to a cartel moving in the same direction? A limited number of people?

(Dr Hiorns) If it were a cartel they would all be meeting together in a room to agree. I assure you that is the last thing that happens. It is simply that I have described the mechanism of the actuarial return requirement The impact of fund performance upon that, the way in which shares are evaluated on the basis of PE or yield, introduces a pretty common standard to this relatively small number of key decision takers. So they are actually making sure their views are not moving to their rivals, because if one man succeeds in analysing a particular share well and understands there exists a price anomaly, he certainly is not going to tell other people until he has carried out his own market operations——

750. So it is more in the nature of the order in which we queue at the bookmaker's board?

(Dr Hiorns) I think there is an element of that about it. The market itself, because of its capacity, will indeed allow some to deal and some not to.

Lynne Jones

751. When we were in Germany and Japan we heard that in those countries, in times of recession, there is a tendency to increase rather than decrease the investment in R&D and plant whereas the reverse seems to have been the case in the United Kingdom. In the United Kingdom in times of recession, the result seems to have been to reduce investment and to increase the payout of dividends. Can you comment on the factors that have resulted in this apparent difference —which seems to have got worse lately—and can you also comment on whether the level of dividends is actually a disincentive to investment?

(Mrs Sidaway) I think the information you had from Germany and Japan was perhaps before the height of the recession had hit those economies or was it more recently?

752. No. Very recently.

(Mrs Sidaway) From the information we have on the engineering companies, certainly they are cutting back quite heavily on investment and on everything in an effort to survive recession, but if you have been there more recently than we have your information is obviously better than ours. I think for the United Kingdom that the better companies we analyse have certainly kept up their capital expenditure throughout the recession consistent with their own view of where their markets are going. One factor which sometimes does inhibit investment is complete uncertainty about what the customer industries are doing and therefore what it is sensible to invest in, but investment which improves productivity or enhances the environment tends to have been continuing, certainly in the larger of the engineering companies that we look at. I think I would also like to comment on the dividend. I do not think you can say companies have been increasing dividend at the expense of investment. Those that have faced severe cash problems are, in fact, cutting both.

753. First of all, the problem is not so much the good companies; it is the other companies that we are concerned about, so perhaps if you could address your comments to those. We have some figures showing that the dividend payout ratio has increased quite substantially in the last few decades and the last peak we have is 51 per cent compared to 26 per cent in the 1970s, for example. I am not an expert in these matters, I am just taking it from the brief!

(Mrs Sidaway) Is that, in fact, for industry as a whole rather than the engineering industry, because I am afraid I am only qualified to talk about the engineering industry in that respect?

754. I think it is more general than that; this is the Prudential portfolio managers saying this.

(Mrs Sidaway) I think in industry as a whole there have been a lot of utility companies and a lot of other different types of companies coming on who have changed the dividend profile, but perhaps Dr Hiorns has a better overview.

(Dr Hiorns) I do not believe that if dividend payouts are high in the United Kingdom they interfere with or reduce research budgets. I think that the type of research that is done is extremely important to define and I believe that most British companies where the managers foresee that their future depends on technical innovation will certainly ensure that their research budgets are in place. I cannot think of any example of a good company where it has reduced research to the long term detriment of the company.

755. May I just interrupt? You are talking about research and development. Although obviously as a Committee we are interested in that, we are also interested in overall investment in new plant and machinery as well.

(Dr Hiorns) I think my comments are similar. You used the phrase "the problem was the others". I think we would argue that if that means a company where the management is poor, or where the risk/reward profile of the company is an extreme one, the available capital ought to go to those companies who obviously provide a bigger reward for a lesser risk. I think also it is right to point out that when small companies come to the market for capital, there is quite a good record on the part of the London Stock Exchange for providing capital for those ventures and I think we can all think of examples of companies which have been provided with capital; some of them have been successful and some of them have failed. May I just say that in presenting our evidence, we can only comment about companies which are of a size that would normally be researched by us. There are obviously many entrepreneurs who would like access to capital and who would say that they cannot raise it. It is perhaps the case that they have not worked out their investment case well enough and it is not sufficiently convincing when it is compared against public companies.

Dr Bray

756. In terms of the effect of R&D plans or actual expenditure on share price, does that to some extent depend upon the particular firm and the reason for that?

[Dr Bray *Contd*]

For example, just from memory, when Glaxo announced an increase in their research expenditure recently that improved the share price whereas when Rolls-Royce did it, it damaged the share price, presumably because the Rolls-Royce one was a cost over-run on the announced development programme.

(Dr Hiorns) Whereas we are very happy to comment on those companies when the share price has improved, it is a little more difficult when it is damaged. You quoted an excellent example of a company which has a remarkably good reputation for the management of research funds as an investment and for providing good long term returns to the investor, whereas Rolls-Royce, where the projects are bigger, the risk is much higher. Obviously the market perceives initially a greater risk and so the share price will perhaps be more volatile in response to announcements about investment.

757. Is this a problem of difference of information or of reality as to what the actual position is?

(Mr Fell) It is a lot to do with perception, about the reasons for the movement in the R&D expenditure and the past success of that company, its market position and the competitive pressures. You cannot take it in isolation.

758. Is there anything that the companies which find it difficult to increase their research expenditure without damaging their share price can do to explain themselves to the market which would improve their prospects, or would fuller explanation only damage them?

(Mr Fell) Almost invariably fuller explanation helps them. It is then a matter of the credibility of that management and that company in the eyes of the shareholders.

Chairman

759. Dr Hiorns, I refer to a publication here, the Institution of Professional Managers and Specialists, dated July 1993, and it says on share ownership in various countries—and I quoted a figure earlier—that in the United Kingdom 49 per cent of the total shares are owned by pension funds. In Japan it is only 16 per cent. On the other hand Western Germany and Japan have something in common; their share ownership by companies. Germany has 36 per cent and Japan has 29 per cent. It looks as though there is some very good reason, like in the United Kingdom here where the fiscal system prefers distribution of dividends because as I understand it the skill of the market can better distribute those funds as anybody else. Is that right?

(Dr Hiorns) I can only express an opinion, but I believe it is correct. I believe that the United Kingdom system does indeed redistribute available capital with some efficiency and I believe that the German system which for two generations has apparently seemed successful will show in the future major problems of capitalization. I think that if your report is referring to the fact that one German company frequently owns a large holding in another German company and that these are sometimes rather friendly holdings put there to defeat the operation of the market, in essence, they have been secure in doing that while German banking system was extremely powerful, but as the stresses of capitalising Eastern Europe start to unravel that system in Germany I believe that we will see the development of an equity market system much more similar than our own developing in Germany.

760. But I think you will acknowledge that the equity system in Europe is comparatively small as compared with that in the United Kingdom?

(Dr Hiorns) Yes, I believe it will become very much bigger.

761. When you say it is going to extend to Eastern Europe, will not Eastern Europe be in some risk of going down and therefore the policy of Germany inclined to go ahead on its own way?

(Dr Hiorns) I was implying that the German banking system has to move funds eastward; it will therefore have to release investments that the banks either have directly or are financing through companies in which they themselves have big holdings, but that process will force the current owners of German companies—other German companies or banks—to put it into a market more similar to our own.

Mr Powell

762. Of course there is another way of looking at this and that is that one of the great strengths of the German economy, and indeed the Japanese economy and almost all the non-anglo saxon economies, is that the commanding heights of the economy—if you use an old-fashioned expression—are in fact in the hands of unquoted companies, not quoted companies and our very reliance upon the quoted market has become a source of the most profound economic weakness and instability in this country simply because the quoted market has to respond to the impulses of the fund managers like yourselves who have to show on a short term basis that you are out- performing your competitors in arriving at the bookmaker's board.

(Dr Hiorns) If that were so, then these companies which are predominantly held in the hands of the state overseas would not be privatising as quickly as they are.

763. They are not predominantly in the hands of the state, are they, in Germany?

(Dr Hiorns) Not in Germany, no.

764. No, nor in Japan?

(Dr Hiorns) Generally, overseas——

765. But they are not in the hands of the state in France either, are they?

(Dr Hiorns) They are partly held by the state and partly held by private companies.

Mr Powell: Maybe as a consequence of a massive and crazy nationalisation programme embarked upon by a socialist government ten years ago. Before that it was all in the hands of the unquoted sector in France.

Lynne Jones

766. Are you saying that nationalised industries are being privatised in other countries in order that they can work more efficiently or is it not the case that

[**Lynne Jones** *Contd*]

privatisation is taking place to release funds for the governments, rather than because of any problem with the efficiency of the companies?

(Dr Hiorns) I think the latter is the case; general problems of debt.

Chairman

767. You would not believe in the theory of short termism as it applies to the United Kingdom; you think it is actually the manipulation of the market itself? I have noticed that while we appear to pay high dividends in the United Kingdom, which you say is not against investment in science and technology, we do happen to attract a large part of Japanese capital here, much more than goes to Western Europe. Can we have it both ways; a high capital inflow and a high dividend paid in the United Kingdom at the same time as we have an attractive investment in science and technology?

(Mr Fell) I do not see why there should be a conflict between the two.

768. Can you just explain that?

(Mr Fell) In some respects the high dividend is almost the opposite of short termism, taking quite a long term view of the sustainable levels of profitability. All the evidence, particularly in the sector that we cover, engineering, is that the market has been prepared to take a much longer view of the last two or three years than previously and that the companies that are most highly regarded and most highly rated are those that have built up that position over quite a long time.

Mr Powell

769. Do you think that is because of a temporary change in fashion or do you think you are actually describing an underlying and significant change in the way in which fund managers approach these matters?

(Mr Fell) I think there is some underlying change in that as funds become more concentrated, the very large fund managers just have to take a longer view to be able to build up positions in stocks and hold them.

770. You have answered that question, if I may say so, extraordinarily cautiously.

(Mr Fell) I am a cautious person!

771. Of course! But you wish us to be of the view that there may be some underlying change, but the other side of that is that you do not want me to go away thinking that there has been very much of an underlying change?

(Mr Fell) There are always people at both ends of the spectrum. There are still pressures on a lot of people to make profits in stocks over a fairly short period of time and in one respect overseas investors coming into the United Kingdom market—or the extreme of that, United States investors coming into the United Kingdom market—are predominantly interested in high profits very quickly and then moving on to something else.

772. The more international the market the more likely it is that will be the case?

(Mr Fell) I think that is perfectly true.

(Dr Hiorns) It is difficult for us as analysts to give a definitive answer to your question about whether we are seeing a long term change in the way manufacturing industry in the United Kingdom is rated by markets. It is certainly true that historically markets have been very wary indeed of the manufacturing sector. However, if markets become confident that first of all the underlying economic background of steadier currency rates, steadier interest rates become such that they can have greater confidence of the long term stability of those, and that in turn works through the corporate P&L to turn into a steadier regime of earnings per share and dividend growth, then indeed that very stability will itself start to work its way into the rating of the share. If therefore the market is becoming confident that British manufacturing industry is indeed becoming more efficient, that the background in which it works is steadier, that there are continuing gains of productivity, that it can genuinely penetrate international export markets, then all of that flows through into a lesser requirement of yield and a greater play of PE in the valuation of the stocks.

773. Of course, but there is, surely, another way of looking at that and that concerns the evaluation of risk. Is it not really the case that British fund managers are extremely reluctant to place significant and heavy funds in areas where there is a degree of risk, where there are other businesses which are supremely profitable which involve no kind of risk at all? May I perhaps contrast the performance on the market of manufacturing industry over a period of time which clearly depends not only upon the excellence of its products, but also the fact that it is only paid after the event with the performance, let us say, of supermarket chains who get their cash up front and become immensely profitable and secure simply because they receive the money from the consumer, often long before they actually pay their supplier and the degree of risk in the involvement of the financial management of such a business is of a totally different order than if you are selling manufactured products in the markets of the world where the element of risk in being paid is very much greater than it would be if you were J Sainsbury.

(Dr Hiorns) Your analysis is perfectly correct, but it is an historical one and, indeed, it is an interesting example of where, if you were an active investment analyst, you would now be saying that food retailing stocks are possibly over valued because there are elements of intense competition coming in as other supermarket chains come in. At the same time you would be saying that British manufacturing stocks are under valued because they reflect the history of 20 years and we think some of the influences we have just been talking about are coming through. That is a working example of the kind of switching strategy that an analyst would make.

Mr Miller

774. I want to take the debate on to a slightly different tack and ask a bit about your company so that we can perhaps put into perspective some of the things

[**Mr Miller** *Contd*]

you are saying to us. May I just, first of all, comment that it is interesting to note that the three of you here represent a pretty good cross-section of industrial experience and academic background; a chemist who has actually worked as a chemist, a mathematician who has worked in engineering and an English graduate who has also had extensive experience in engineering. Are Kleinwort Benson's analysts likely to have the experience relevant to the sectors from which they come? What training are they given and perhaps you could compare that with what you know about your competitors? Then I would like to come back and probe you a little bit further on another aspect.

(Dr Hiorns) Our analysts do not necessarily work in sectors in which they have had industrial experience, nor are we necessarily typical of a broad spread of analysts. I think there is an element of coincidence that all three of us have worked in industry. Mrs Sidaway works in engineering now, but Mr Fell and I are a mathematician and an engineer. Analysts come from all sorts of background. They can be lawyers, solicitors, accountants, MBAs, English graduates, Foreign Language graduates. They come from all backgrounds although it is generally true to say that they have good academic qualifications. It is also generally true to say that they show either an ability or a history of numeracy because of the numerical background of the subject. The training of analysts in Kleinworts is little different from analysts anywhere else in the United Kingdom. It is a combination of on the job training coupled with various courses, but I think the biggest input into the training of an analyst is really sitting next to an experienced analyst. That, as I say, is not different across the spread of United Kingdom houses. It is, however, quite different from the training of a United States analyst which would be more formal. I cannot say this definitively, but I believe that to work in America you have to be a Chartered Public Analyst. Certainly a large number of American analysts do have a chartered qualification, rather similar to our chartered accountancy qualification. It is a matter of debate in the analytical community in London as to whether it should be a chartered profession or not.

775. In terms of the training programmes that exist, how much of that involves actually taking people back into industry and looking at things from industry's perception?

(Dr Hiorns) None.

776. That leads me on to ask you about the reports you wrote in February 1993 where you say—and I think it was Mr Fell who referred earlier on to perceptions —in your conclusion: "In the last ten years there has been a significant decline in the engineering sector as a proportion of the equity markets" and then you go on to say: "This reflects the development of new sectors such as telephone networks, water and electricity"—which I think all of us would accept is a change of terminology evolving—but you go on to say, and this is what worries me: "Not an over all loss of confidence in the engineering sector". Now it seems to me from the engineering companies I visit, both very large and very small ones, we still have a perception, to use Mr Fell's word, from the engineering industry that the City is a dirty word and *vice versa*, in the City engineering is a dirty word. I wonder whether you would like to comment? Do you think there is a gap opening up between people even like yourselves and like many of us round the table here that have had industrial and perhaps laboratory experience and the people who are out there at the sharp end doing the job?

(Mrs Sidaway) I think I was just drawing the point about the arrival of the new sectors because it did look as though engineering had actually declined very rapidly in terms of investment in it and I just wanted to draw attention to the fact that, in absolute terms, it was actually the same. So that was the reason for that and perception is the wrong word really; that was just fact. These are new sectors that have come in. Your more serious question was about engineering and the possible gap between the City and the engineering industry. I think the engineering industry itself is such a fascinating one that the analysts who follow it tend to follow it over years; I have now been doing it for ten years and Mr Fell has been doing it for 25 years. Unlike other sectors when I occasionally go to other meetings and talk to my colleagues, engineering analysts in general have been following their companies for many years. They might start off with less industrial background than we have, but in fact the companies themselves are usually good at educating them and there is a good two-way dialogue. Companies like to show their facilities and help those who do not understand the technologies to learn. Similarly I think the analysts themselves try to explain to the companies —particularly the smaller companies who have not been exposed to the City before—how the City works. It is hard to generalise to the other sectors, but certainly my feeling in the engineering sector as it works on a communication basis is quite good. It could of course be improved and I think one of the areas where I would like to see improvement is in the area of explaining the R&D they are doing so that it is understandable and accessible to the City. That is a big gap still and I think companies are more and more realising that they have to be pro-active in explaining that. I do not think the lack of training of the analysts is a particular problem and I think there is good will on both sides where there is a gap.

777. So it is partly a communications skill that is lacking on the part of both the City and the engineering industry and partly a lack of understanding of each other's role?

(Mrs Sidaway) Yes, I think so and I think communication is a good summary of the problem. Sometimes it is compounded by what companies feel they can talk about, which is becoming more complicated with information on inside dealing and disclosure of information, but where there is trust built up on both sides I think companies realise that the greater the understanding of what they are doing—the research they are doing, the new developments they are doing—all these factors will lead to the sort of long term investment which most companies are seeking.

778. Do those series of problems we have been discussing, together with what is, after all, a very

[**Mr Miller** *Contd*]

narrow degree of specialism in your own field, create an inherent disadvantage for engineering based companies compared with companies from other sectors?

(Mr Fell) I think the City's view of engineering now is higher than at any other time during my 25 years of following it.

779. So it has been pretty low?

(Mr Fell) I started by covering things like shipbuilding, aircraft and machine tools in the late 60s. A lot of those, as industries in the United Kingdom, almost disappeared. There are remnants from the industrial revolution, but views and perceptions are inevitably coloured by the success of the major companies in the sector. I think your colleague earlier referred to the food retailing sector as being extremely profitable in the United Kingdom. Some companies in that sector have done extremely well; some have been absolute disasters. It is just that two or three well-known household names have had a tremendously long period of profit progress and that has coloured over all views.

780. Even in some modern technologies there have been some pretty recent disasters in engineering, have there not? I know it is a much more complex issue, but Ferranti have called in receivers this afternoon I have heard, Plessey have disappeared off the face of the earth, not entirely but it has largely gone under the control of the German-based company. Virtually all vehicle design has gone out of the United Kingdom.

(Mr Fell) Went out, but is coming back.

781. Well——

(Mr Fell) There are great instances of resurgence with enormous success stories, such as Rover. There are now a number of very large engineering companies who are very clearly world leaders in what they do. The largest single engineering company is now a company called Siebe, which most people had never heard of ten years ago; there are a number like that. I think the big problem for the United Kingdom in terms of perception is for industry as a whole, not just engineering. We cannot attract people into industry as a whole.

Chairman: The Committee is looking at six sectors, primarily; machine tools, office electronics, aerospace, automotive, food and drink, and pharmaceuticals. These differ very widely in their approach to R&D and their links with the science base. You are analysts and you have long experience behind you. What is your view of the differences between these various sectors?

Lynne Jones: The ones who have been successful and the ones who have not.

Chairman

782. You mentioned ship building was diminishing in the United Kingdom to a certain extent. Some of the other companies are improving.

(Mr Fell) The reason why businesses have gone out of the advanced world into the less advanced world are where there is a lower technological content; you cannot actually build in a high technology content and ship building, I think, is a prime example of that. Within those six then I think the time scales for investment probably vary quite considerably, except within the aerospace industry; they are far longer than almost anywhere else. Success at the end of the day has been very much down to the foresight of management.

783. It would seem to me that the pharmaceuticals are well ahead of any other branch. There is Smith, Kline Beecham, Glaxo, Wellcome and I could mention others, all well in advance. They spend a lot on R&D; the other companies do not.

(Mr Fell) The aerospace industry does and we have a very strong position world wide.

Lynne Jones

784. On the defence side perhaps; is there a difference between civil and defence?

(Mr Fell) Even in civil we have a strong position in what we actually do. British Aerospace's contribution to Airbus Industries is enormously important.

Mr Powell

785. What factors would you consider in giving advice as to whether or not to invest in a particular company, particularly as it relates to its R&D base and the links to the science base of the country?

(Mr Fell) It is enormously difficult to look at it in those sort of terms of isolation.

786. We want to give you a fair opportunity to answer this, but what we are interested in on this Committee is science and research and development. There is a perception in this country that the asset base, which comprises research and development and the links to the science base, are under-valued pretty consistently by the markets, except in the sector to which our Chairman referred which is the pharmaceutical industry where we are in world leadership roles again and again. What we are driving at the whole time is to try and give you a fair opportunity of answering the underlying criticism with which you will be fully familiar, that people like yourselves, in giving advice to your clients, simply say they are using their cash in order to invest in research and development of an uncertain sort, rather than matters which you are looking for, namely returns?

(Dr Hiorns) I think that an analyst would look at the research programme, if the company he is analysing is plainly a research-based company, in rather more detail than you have implied. He would, first of all, evaluate the technology that is involved in so far as he can and in sectors like pharmaceuticals analysts are often very highly qualified in that particular area. It is something of an exception to the sort of rule I implied to you that background does not matter too much. Analysts would have a fairly sophisticated view of the investment cycle of any product; in other words, that a company does indeed invest a great deal of money initially in either a piece of research or new plant—the cycle is the same—that is going to cut into the profit estimates over a certain time. The analyst will form a view as to whether

[Mr Powell *Contd*]

that is going to be 12 months or five years, so that in the case of Plessey for example, which you quoted earlier, it was very plain that there would be a marked shortfall in profits for a period of four or five years. Bearing in mind that his duty is to the institutional fund managers that he serves, he quite correctly sees that is going to reduce profit and reduce the share price in the market. The other side of that equation is that if the analyst has been studying a company for some time and he knows that a research programme, a new plant is coming on stream at the right point in the economic cycle, because he will be looking at the balance of supply and demand affecting the new products, he will become an avid buyer of the stock if he calculates that the plant is coming on stream at the right time. So there will be a reasonably sophisticated view of the life of the research programme. Admittedly it is not one that says: "This company is investing a great deal of money which will reap a reward in five, ten years time. Let me therefore buy it now". He may well calculate that he can buy it cheaper later on. In the same way, the boards of the companies that took various pieces of Plessey, calculated that Plessey had, in fact, invested in extremely good products; it had simply over-invested in too many products at the same time. No company of that size could really bear this mechanism of profit detriment from four projects over four years; I think that was the figure.

787. What it really comes down to is this—no criticism of you whatsoever— your primary responsibility is not to provide capital to companies who are seeking to invest in the future through research and development, but rather your primary responsibility is to the investor who is seeking a return on his investment in a particular company?

(Dr Hiorns) Yes, I think we have to be very clear that our duty is to the investor.

(Mrs Sidaway) I think it does depend on the company and we had results today from a very interesting company, Johnson Mathey. As Mr Fell said, we do have a lot of world class companies in our sector, and Johnson Mathey is certainly one of them. They have become that by investing very heavily in research and development. As well as doing the investment they also have an extremely good communications programme and therefore people have confidence in the investment now. In fact they are now investing £25 million a year plus in pure R&D, but we are confident that this is going to be money that is well spent because they have been consistently successful in the past. This is a lot to do with communication in terms of building confidence that R&D is money that is well spent.

(Mr Fell) One of the advantages of that company is that it is a recognised world leader. We have in the United Kingdom three or four world class automotive component manufacturers whose shares are remarkably highly rated at the moment, despite diabolical trading conditions when profits are very depressed because of the perception of how strong their technical position is, how much they have been spending on R&D and how good their long term prospects are.

Lynne Jones

788. It seems to follow on from that, that if a company has a good reputation then the market is prepared to invest at a time when they are heavily involved in R&D, but what if a company perhaps has not had the opportunity to demonstrate this. There is a difference between a company who has had a poor record that perhaps investors might want to shy away from and companies which have not perhaps had the opportunity of demonstrating that their research and development is good, so my question really relates to giving advice on investment and actual funding. What account do you take of R&D in a company and its potential, notwithstanding their previous record?

(Mr Fell) Again, I think there are a lot of examples where companies may have got into quite serious difficulty for maybe reasons of management where the market is prepared to back them in a long term view because the market understands there is a strong base there and that a new management team coming in will regenerate that company.

789. How do you assess that in giving that advice and what sort of factors do you take into account? Does it vary between the various sectors? There is an assumption that pharmaceuticals have to invest a lot in R&D.

(Mr Fell) Every sector is different. The market characteristics are totally different, even within engineering. We do not actually cover Plessey because Plessey is more towards electronics and the time frame for new developments in the electronics industry is much shorter than in mechanical engineering. In mechanical engineering things tend to evolve rather than be transformed overnight. The success of any company is not just down to its technology, it is down to all sorts of other factors; service, reliability, support, price, reputation.

Mr Powell

790. The exchange rate?

(Mr Fell) Well that could be absorbed within the price. That is not necessarily a fundamental thing and if some of those factors are missing, other factors could still give you a base on which to regenerate.

(Dr Hiorns) I think if I may give you some examples of industries where very small companies, with extremely speculative research prospectuses have been supported by the market, I think I would point to what are not called pharmaceutical companies, because they do not have that established reputation and history of successful research management, but the bio-chemical companies which have recently been floated. Each one of them is almost a single product and a single scientist concept, so some of those will undoubtedly fail, but the market has been prepared to risk money there. I think we have seen the successful funding of many small software companies through the market, perhaps not so much at the moment, but ten to 15 years ago a surge of small electronics companies, especially ones to do with telecommunications. So the market is prepared to take high risk.

Lynne Jones

791. How does it evaluate that know-how? If you take Glaxo where its market value is far in excess of its tangible assets, so there is, if you like, an imponderable difference. How is that? Obviously that is such a big figure that even a minor variation in an assessment can make a big difference to its market price?

(Dr Hiorns) I think there are two completely different sets of criteria. I think that a firm like Glaxo will be analysed along the lines we have been describing; careful calculations about earnings flow, return on investment over the years, products in the pipeline, examination of patent records and so on. A great deal of in-depth research goes to build up a picture. With the small venture capital companies, I think that the personal relationship impact of the entrepreneurs running those companies on providers of capital is much more significant because they have no record to go on, so it is simply examining whether you believe the people running the small company will deliver what they say.

Chairman

792. But surely, Dr Hiorns, Glaxo with its excellent record on research has under performed the market, well and truly under performed the market on its share price. On the other hand, mention was made just a moment ago of Johnson Mathey; what is your primary interest there? In platinum and the auto-catalyst developments or is the backing of Anglo-American?

(Mr Fell) The backing of Anglo-American and the relationship with South African companies is almost irrelevant. From the stock market's point of view the investment in Johnson Mathey is tied to, first, the strength of its world technical position. It is one of the few United Kingdom based companies which lead the world by a long way in what it does. Second, the growth prospects in its particular businesses and the management's ability to derive a benefit from that. Just going back to Glaxo, quite apart from what Dr Hiorns said there is no definitive valuation for any company; at the end of the day its valuation is defined by a market and market valuations both go too high and too low.

Dr Bray

793. You say at times throughout the world with research on the prospects of companies, are they not generalisations that you make, for instance between countries and the kind of information they expect on the technology of products and processes, their competitiveness, and the likely effects of those on profits?

(Dr Hiorns) There are vast differences depending upon the home regime of the company, so that a United States company will provide a great deal of information and a British company will provide a great deal of information. German and Japanese companies will be quite reserved about what they say. You will probably only be given information from those companies when they want to use the market in its primary role and the legal conditions in the local market are necessarily the limitation on this process. It is the spread of active investment analysis which is well established in the United States, the United Kingdom and France and its practices are now only becoming utilised in places like Japan. There is a process where the company has to get used to the kind of question that it is asked.

794. I sent you copies of reports from Paine Webber and from John Tumazos in New York specifically on the impact of the new technology of thin slab steel casting in the steel mini-mills in the United States. Looking in detail at not only the prospectus on the privatisation of British Steel but all the stockbrokers' circulars at that time and since, there is no comparable description that I could find giving any analysis of the plant inventory for British Steel, let alone production costs on different plants and any assessment of just how technologically competitive their plant really was. Is that correct?

(Mr Fell) I think your last point is not correct. There may not have been anything for individual plants, but there was a lot of discussion about the competitiveness of British Steel relative to, particularly, its European competitors.

795. In general terms, but specifically looking at this Paine Webber report on new core it gives production efficiencies, labour costs, detailed comparisons.

(Mr Fell) There are two points on that. First, you have to have the availability of that and second, they were picking a particular angle where they saw investment potential and that investment potential arose in the United States because of the structural situation of the United States steel industry which was rather backwards and allowed newcomers to come in and carve them up; that does not actually exist in the United Kingdom or in Europe.

796. With respect, newcomers had come in in the United States; newcomers have been excluded in the United Kingdom. I wonder whether Mrs Sidaway has any comment?

(Mrs Sidaway) I think firstly Peter Marcus is more of a consultant to the steel industry and he has set up business whereby he gets information on a confidential basis from every steel company, which is simply not available to the rest of us and therefore his work is designed often for the steel companies themselves, so it is not comparable to other analysts' work. Your other point is really whether the analysts assess the technical background in sufficient detail I think or whether they only look at other aspects. I think we looked at it in as much detail as we needed in the circumstances because British Steel was floated primarily to the United Kingdom investment community and the prospectus itself was a legal document really to create that situation. A lot of the potential investors at the time of British Steel were actually having to decide yes or no on British Steel *vis- a-vis* other investments in the United Kingdom and issues on international competitiveness, which I agree are important in the longer term, were actually not as directly relevant as other stock market technical factors.

797. Well, it tells the availability of the expertise. There is a publication "Metal Bulletin Research" which

[**Dr Bray** *Contd*]

is published by Metal Bulletin on a subscription basis and Metal Bulletin is the leading trade periodical for metals and the steel industry throughout the world. The author of Metal Bulletin Research is able to give comparable cost information to that quoted here for the United States majors and for the mini-mills in the States. He is not employed to do so by any United Kingdom stockbroker. Why?

(Mr Fell) The United States market cannot supply steel into the United Kingdom market or many of British Steel's other markets competitively. If it could, then we would take a lot more notice of individual plants.

798. I am sorry, I have not made my point. Metal Bulletin Research is able to provide this detailed cost information on different plants of British Steel in this country and their comparisons with other plants in Europe and nobody pays for that kind of research in Europe. Why not?

(Mrs Sidaway) I think, in fact, a lot of the information does all come from Peter Marcus because he is the only one that I am aware of who has been given access by each steel company to that sort of information, which is extremely detailed and then he charges. Any one of us could actually get that information if we wanted to pay thousands of dollars, because that is why he does it and I suspect that is where their information comes from.

799. I did not have any difficulty in getting comparable cost information through Arthur Young who employed former British Steel accountants as consultants. They had full knowledge of the information, but they were employed to do a particular consultancy study, but that particular consultant was never employed by a stockbroker. This is relevant information to prospects for British Steel earnings because it basically addresses the point of whether the kit of plant that British Steel was privatised with is basically obsolete in flat products or whether it is competitive? The Tumazos report which I sent you argues the case that the long run world price—and therefore broadly the price in Europe as well as in America—is going to be determined by the thin slab casting technology costs and not by the old thick slab processes.

(Dr Hiorns) May I make a comment of a general kind about the type of research provided? I do not know if Mrs Sidaway wants to follow up on the detailed points you have made. I would ask you to bear in mind that we ourselves are subject to extremely rigorous market competition in the research we provide, so the function of a research department like the one I run is indeed to find every last piece of relevant information which will be significant in moving a share price around. So, either you have come upon a source of interesting information which we would use to argue a price anomaly in British Steel, or the market which we serve—the institutional fund manager—is saying to us, through his interest in our research or whether he goes to another broker's research, that it is not relevant. So there is a mechanism which determines whether information is relevant or not.

800. I do not refute that and I appreciate that you are in a research market and I am sure you are very effective operators in that market. What I am asking are questions not just about yourselves, but about the market. Mrs Sidaway says that Peter Marcus is a particular expert; well, may I quote another industry, the chemical industry both the heavy chemicals and fine chemicals, pharmaceuticals. Some of us were having a discussion very recently—today in fact—with the Chairman and Directors of ICI and Xenaca and I asked the question how the quality of investment analysis research on chemicals and pharmaceuticals compared in London and New York and they said it is incomparably better in New York. Now, why?

(Mr Fell) You would not get the same answer from other companies in different sectors. You would get exactly the opposite answer; we have had that said.

801. May I offer two possible explanations? One is that the disclosure requirements on the New York Stock Exchange are very much greater than they are in London and the other is that the market for information in New York is very much bigger than it is in London. Are those both true?

(Dr Hiorns) I think the first point you have made is very relevant. I am not so sure about the second one. I think there are differences in the nature of the market in London compared to New York which we referred to earlier. It is generally the case that the New York market responds to what we would call a piece of in-depth research, meaning the kind of research that you have referred to. A document which examines in considerable depth the structure of a company in all its facets. The London market does not work in quite that way. I believe because there are a smaller number of people examining a smaller number of companies where they have a much greater body of common knowledge about ICI, for example, so that a piece of research in London which would be considered good would be the incisive comment on naphtha prices observed in the Rotterdam spot market and its influence on the downstream products of ICI. While in academic terms we would all feel the great tome on ICI is somehow more respectable, in the realities of our day to day business which is predicting when share prices are going to move violently, it may be that a single page commenting on one facet which years of analysis have shown is a crucial one will be much more important. I have plainly exaggerated to some extent, but that would characterise the difference between London and New York.

802. Well the naphta price, which was an important factor in the days when you and I worked there, could be documented in its effects on ICI earnings very precisely through the tonnage of naphta used in the ethylene trackers and it was a highly profitable operation and it was possible to tell precisely why, but that comparable information is in the cost structure of the steel industry, the aircraft industry, the food processing industry and so on in the United States and seems to be systematically analysed and presented. There is not the same systematic effort or, apparently from what you say, interest in having that systematic

[Dr Bray *Contd*]

effort. If you wanted to get it, is the approach through disclosure requirements, listing requirements, accountancy standards, and so on?

(Dr Hiorns) When London analysts need to produce in depth research, their in depth research can be as good as, if not better than, American research because American research is often produced according to rather rote standards laid down by the educational background of the people who do it there. Often United Kingdom research can be more insightful because, again, of the different training of research people in the general academic sense in the United Kingdom.

803. It is a comforting thought to feel that we are perhaps more insightful and I am sure that is an indulgence that Members of Parliament are as prone to as anybody else, but if you look at the actual performance in terms of the trends in competitiveness of United Kingdom manufacturing industry as it is developing under the influence of United Kingdom capital markets and its structure, would you think that increased disclosure and increased depth in the reporting and analysis of technology in research and development had a substantial contribution to make to the improvement of competitiveness in the United Kingdom?

(Dr Hiorns) Perhaps we ought each to give a personal answer to that. My own view is that in light of the changes occurring in the research background in London and legislative changes, I believe that more in depth research, evaluating companies on a longer basis, perhaps developing methods of giving value to research programmes much in the way that over the past five years values have been given to brands, may well evolve.

(Mr Fell) I think from a personal point of view, it is very nice to have so much more information, but I think we are in a different situation in the States. The States is a very large, almost closed, economy where a lot of the information is common to a large number of companies. In many cases that information will be common to probably just one company in the United Kingdom and there are competitive reasons why it should not be disclosed. Equally, in my experience disclosure in the States has not given United States companies a competitive advantage over United Kingdom companies. In a lot of the areas we follow I think United Kingdom management, United Kingdom owned businesses, are much superior to many United States companies.

(Mrs Sidaway) I would of course, as an analyst, like to have as much information as companies would give me as long as they did not give it to my competitors! Joking aside, I think you can have overload of information and I think ultimately the companies which will attract the most following will be those who consistently give information which turns out to be correct. You do not really need an enormous amount of cost structure information if, over time, the company has done what it said it was going to do and it has produced the cash and profits it has said it is going to do. You just develop confidence that it will fulfil its commitments.

Mr Powell

804. There is an opinion in this country, quite widely expressed, that small hi-tech companies under perform here as against those in the United States of America because of lack of sufficient financial support. There have been a number of changes in recent years. Rules on listing have been relaxed, the USM has been abolished, the Stock Exchange has released its listing rules for research based companies and so on. Do we need to go further?

(Mr Fell) I think it brings us back to one of the earlier points we raised; it is the instability of the economy. Stability of markets is everything to entrepreneurs.

805. Is not more cash back required here?

(Dr Hiorns) I believe the mechanisms for financing small companies through mezzanine funds, through venture capital funds provided by the great savings institutions are sufficient to provide support for companies at their inception. I think that the success of the small companies part of the stock market over the past two years provides the right kind of market support for companies of that kind as well, so I do not think there is much more that needs doing.

Chairman: Mrs Sidaway, Dr Hiorns and Mr Fell. Thank you very much. It is now well after 6 o'clock and you have spent over an hour and a quarter with us. We are most grateful to you for all the answers you have given.

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